

ABSTRACT OF THE INVENTION

An apparatus for transmitting data between downhole tools is disclosed in one embodiment of the present invention as including an annular core constructed of a magnetically-conductive material. At least one conductor, electrically isolated from the annular core, is coiled around the annular core. An annular housing constructed of an electrically conductive material is used to partially enclose the annular core and the conductive coil. The annular housing is shaped to reside within an annular recess formed into a surface of a downhole tool, and is electrically insulated from the surface. A biasing member is used to effect a bias between the annular housing and the annular recess, urging the annular housing in a direction substantially perpendicular to the surface.